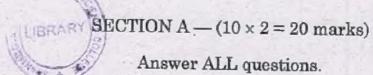
- 19. Discuss in detail about the isolation of phosphate solubilizing bacteria.
- 20. Elaborately discuss about ecto, endo and ectendo mycorrhizae role in phosphate mobilization with examples.

NOVEMBER/DECEMBER 2023

CEMB64A — BIOINOCULANTS TECHNOLOGY

Time: Three hours

Maximum: 75 marks



- What are the PGPR?
- 2. Comment on Bacteriod.
- 3. Name any four species of Rhizobium.
- 4. Explain the role of Rhizosphere.
- 5. Comment on "heterocyst".
- 6. Define Siderophore.
- 7. List out any two phosphate solubilizing fungi.
- 8. Differences between phosphate solubilizer and phosphate mobilizers.
- 9. List out any two examples of endomycorrhizae.
- 10. Comment on VAM.

SECTION B — $(5 \times 5 = 25 \text{ marks})$

Answer ALL questions

11. (a) Explain in detail about the associative Symbiotic Nitrogen Fixers.

Or

- (b) Explain in detail about Plant Growth Promoting Rhizobacteria.
- 12. (a) Discuss the about the Rhizobium-legume symbiosis.

Or

- (b) Give an account on non-leguminous crop symbiosis.
- 13. (a) Briefly explain the role of cyanobacteria in rice cultivation.

Or

(b) Explain in detail about method of characterization and mass multiplication of Azolla.

Elaborately explain about the method of field applications of phosphate solubilising mechanism.

Or

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(a)

- (b) Elaborately discuss about Phosphate Solubilising Microbes and its significance.
- 15. (a) Elaborately discuss about mass multiplication of VA mycorrhizae?

Or

(b) Explain the method of quantification and assessment of VAM in roots.

SECTION C — $(3 \times 10 = 30 \text{ marks})$

Answer Any THREE questions

- 16. Elaborately discuss about the taxonomic character, isolation and mass multiplication of Azotobacter.
- 17. Describe in detail about the isolation and characterization of Rhizobium.
- 18. Elaborately explain the method of field applications of *Azolla* and crop response.